# **SGCN** and Stressors Associated with Habitats

Report Date: January 13, 2016

### **Macrogroup: Subtidal Mollusc Reefs**

**Habitat Systems within Macrogroup:** 

MacrogroupName Subtidal Mollusc Reefs

**Gastropod Reef** 

Mollusc Reefs Macrogroup - Unknown Habitat System (i.e. Macrogroup)

Mussel Reef Oyster Reef

**Description:** A reef is typically a cohesive mass comprised of hard biogenic structures like calcarius shell forming animals.

Adopted from the USFWS ACFHPand CMECS habitat descriptions, but definitions concentrated only on cohesive

masses of bivalves.

GCN Associated \	With This Habitat Total SGCN:	1:	2	2:	3	3:	3
Class	Asteroidea (Sea Stars)	SGCN Category					
Species	Asterias rubens (Common Sea Star)					2	
Species	Crossaster papposus (Common Sun Star)					2	
Species	Asterias forbesi (Forbes's Starfish)					2	
Class	Aves (Birds)				SGCI	N Cat	egory
Species	Bucephala islandica (Barrow's Goldeneye)					1	
Species	Histrionicus histrionicus (Harlequin Duck)					1	
Species	Clangula hyemalis (Long-tailed Duck)					3	
Class	Bivalvia (Marine And Freshwater Molluscs)				SGCI	N Cat	egory
Species	Mytilus edulis (Blue Mussel)					3	
Species	Crassostrea virginica (Eastern Oyster)					3	
ndangered (E) an	d Threatened (T) Plant Species Associated With This Habitat: None assi	gne	d				

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#### **Stressors Associated With This Macrogroup**

IUCN Level 2 Threat Name: Agricultural and Forestry Effluents

**Notes:** Though this threat has been drastically reduced with the implementation of best management pratices, in coastal watersheds, excess runoff of nutrients, fertilizer, sedimentation, and pesticides can lead to poor water quality in tidal areas and lead to exc

IUCN Level 2 Threat Name: Domestic and Urban Waste Water

**Notes:** Though this threat can be reduced with the implementation of best management pratices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor

IUCN Level 2 Threat Name: Fishing and Harvesting of Aquatic Resources

Notes: Fishing for demersal fish species, scallops, etc; dragging may alter benthic habitat; overfishing is also an issue in some case:

IUCN Level 2 Threat Name: Garbage and Solid Waste

**Notes:** Lost fishing gear, discarded plastics, boat mechanic fluid containers (oil, antifreeze). Sometimes can be retrieved (ghost gear programs), but is generally lost especially if offshore.

**IUCN Level 2 Threat Name:** Habitat Shifting or Alteration

Notes: Chemical changes in water chemistry (e.g. ocean acidification) can affect biological communities and natural processes

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IUCN Level 2 Threat Name: Industrial and Military Effluents

**Notes:** Release of effluents may contain high concentrations of toxic contaminants, etc. largely effects nearshore habitat, where impact can be long term. Oil spills can effect nearshore or offshore environments and can be either localized (if contained or small)

IUCN Level 2 Threat Name: Invasive Non-native-Alien Species-Diseases

Notes: Invasive green crabs and other invasive species

**IUCN Level 2 Threat Name:** Recreational Activities

Notes: Fishing for demersal fish species, scallops, etc; overfishing is also an issue in some cases

**IUCN Level 2 Threat Name: Renewable Energy** 

**Notes:** Mounting equipment and transmission cables for floating offshore wind turbines. Also proposed tidal barrages and other hydropower or tidal power structures can block marine organisms.

**IUCN Level 2 Threat Name:** Temperature Extremes

**Notes:** Sea surface temperature increases may change the community structure; exacerbate disease, etc.

IUCN Level 2 Threat Name: Viral-Prion-induced Diseases

**Notes:** Viral diseases (e.g. MSX) can lead to higher mortality or mortality at younger ages. Numberous viral infections affected multiple species have been documented in Maine.

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#### **Habitat Conservation Actions:**

Relevant conservation actions for this habitat are assigned within broader habitat groupings in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-15. Click on the Habitat Grouping of interest to launch a habitat based report summarizing relevant conservation actions and associated SGCN.

## **Species Conservation Actions:**

Conservation actions that may benefit species associated with this habitat can be found in Maine's 2015 Wildlife Action Plan: Element 1, Table 1-3. Click on the species of interest to launch a species based report summarizing relevant conservation actions and associated habitats.

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The Wildlife Action Plan was developed through a lengthy participatory process with state agencies, targeted conservation partners, and the general public. The Plan is non-regulatory. The species, stressors, and voluntary conservation actions identified in the Plan complement, but do not replace, existing work programs and priorities by state agencies and partners.